

COMMUNICATIONS RECEIVER WITH INTEGRATED  
IF FILTER AND METHOD THEREFOR

5 ABSTRACT OF THE DISCLOSURE

10 A receiver (22) includes an IF filter (44) and a nearby  
process-variant circuit (80) formed on a common semiconductor  
substrate (24). The actual center frequency of the IF filter  
(44) is determined by resistors (70, 74) and capacitors (72,  
15 76) exhibiting imprecise values and is unlikely to equal a  
nominal center frequency. The process-variant circuit (80)  
includes a test resistor (102) and test capacitor (104) formed  
using the same resistor-forming and capacitor-forming processes  
used to form the IF filter resistors (70, 74) and capacitors  
20 (72, 76). In response a test signal (88) from the process-  
variant circuit (80) and a reference signal (84) from a  
process-invariant circuit (82), a tuning parameter for a  
tunable local oscillator (90) is determined so that a local  
oscillation signal (94) will exhibit a frequency which, when  
mixed with an RF signal (38) yields an IF signal (42) at the  
actual center frequency of the IF filter (44).